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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,272	06/30/2004	Bruce Bennett Doris	FIS920030389US1	4271
48144	7590	09/07/2005	EXAMINER	
MCGINN & GIBB, PLLC 8321 OLD COURTHOUSE ROAD SUITE 200 VIENNA, VA 22182-3817			TSAI, H JEY	
			ART UNIT	PAPER NUMBER
			2812	

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/710,272

Applicant(s)

DORIS ET AL.

Examiner

H.Jey Tsai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 16-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 23-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/30/4.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

***Election/Restriction***

Applicant's election without traverse of claims 1-15 and 23-30 in the reply filed on Aug. 24, 2005 is acknowledged.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 7-15, 23-30 are rejected under 35 U.S.C. § 102(e) as being anticipated by Sakaguchi et al. 2004/0259315.

Sakaguchi et al. discloses a method of forming an electronic device, comprising:  
forming at least one localized stressor region (strain inducing region for applying stress) 14 or 27 within the device, fig. 1E, 4A-4D, 7A, para. 43-44 58-59, 96-105,  
forming a second localized stressor region within the device, fig. 1E,  
first localized stressor region and said second localized stressor region causing a region therebetween 13 /13'to be stressed,  
first localized stress-stressor region and said second localized comprise a same type material of SiN or oxide, para. 43,

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the same type material comprises one of a compressive stressor material and a, tensile stressor material, para. 75, 96-97, 107,

device is a FinFET (Fin Field Effect Transistor), fig. 6H, para, 85,

first and second localized stressor regions are formed on a source and drain region of the FinFET, fig. 4A,

device comprises a planar FET (Field Effect Transistor), fig. 4A,

comprises a compressive carriers in said region being stressed

the same type material and primary charge comprise holes (carriers), para. 43,

the same type material comprises a tensile material and primary charge carriers in the region being stressed comprise electrons (carriers).

The region being stressed causes carrier mobility in said stressed region to be one of increased and decreased, relative to a carrier mobility in a region without the stress, para. 43,

forming a blocking mask, para. 104,

at least one of localized stressor region 14 interacts with a stressed region located outside said device, fig. 4A,

wherein said at least one localized stressor is used to generate one of a compressive stress, para. 43,

wherein the at least one localized stressor region is located within the device to generate a Stress that enhances a performance of the device, para. 12,

wherein the enhancement comprises an increase in performance enhancement by changing carrier mobility, para. 43.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C 103 as being unpatentable over Sakaguchi et al. as applied to claims 1-5, 7-15, 23-30 above, and further in view of Hareland et al. 6,909,151.

The difference between the references applied above and the instant claim(s) is: Sakaguchi et al. teaches forming a stressor (a strained region to apply stress on the channel region) but does not teach forming fin connectors for a plurality of FinFET devices. However, Hareland et al. teaches at fig. 5E and col. 10, lines 13-67, forming fin connector 520 to connect the FinFETs and forming a stressor 560.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above references' teachings by forming fin connectors to a plurality of FinFET devices as taught by Hareland because a common stressor can be formed for all FinFET devices.

Any inquiry of a general nature or clerical matters or relating to the status of this application or proceeding should be directed to the customer service whose telephone number is (703) 308-4357.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to H. Jey Tsai whose telephone number is (571) 272-

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1684. The examiner can normally be reached on from 7:00 Am to 4:00 Pm., Monday thru Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael S. Lebentritt can be reached on (571) 272-1873.

The fax phone number for this Group is 571-273-8300.

hjt

8/31/2005

A handwritten signature in black ink, appearing to read 'H. Jey Tsai', with a stylized, flowing script.

H. Jey Tsai  
Primary Examiner  
Patent Examining Group 2800